

REMARKS

Favorable reconsideration of this application, in light of the preceding amendments and following remarks, is respectfully requested.

Claims 1, 4-5, 8, 11, and 15-18, 20-21, 23-25, 27-28, 30-32, 34-35, 37-39, 41-42, 44-46 are pending in this application. By this Amendment claims 1, 4-5, 8, 11, 15-18, 20-21, 23, 25, 27-28, 30, 32, 34-35, 37, 39, 41-42, 44 and 46 are amended and claims 3, 6-7, 19, 22, 26, 29, 33, 36, 40, 43 have been cancelled. No new matter is added. Claims 1 and 15-18 are the independent claims.

Rejections under 35 U.S.C. § 101

Claims 1, 4-8, and 11 are rejected under 35 U.S.C. § 101 because the claims are allegedly directed to non-statutory subject matter. In particular, the Examiner asserts that claims 1, 4-8 and 11 recite a computer readable medium which does not “provide any functional interrelationship to the medium to control the medium to readout the information, or impart to any software or hardware structural components to provide certain function that is processed by a computer.” functionality to a computer or computing device, and is thus considered nonfunctional descriptive interrelationship with a computer, does not constitute a statutory process, machine, manufacture or composition of matter and is this non-statutory per se. Applicants respectfully traverse this rejection for the reasons detailed below.

Applicants maintain the arguments set forth in the October 26, 2007 response with regard to the above rejection. Additionally, Applicants would like to clarify the following issues.

The Examiner appears to be under the mistaken impression that “means or circuits” are needed “in the body of the claims.” This is simply incorrect. In particular, MPEP § 2106.01 states the following:

In this context, “functional descriptive material” consists of data structures and computer programs which impart functionality when employed as a computer component. (The definition of “data structure” is “a physical or logical relationship among data elements, designed to support specific data manipulation functions.” The New IEEE Standard Dictionary of Electrical and Electronics Terms 308 (5th ed. 1993).) “Nonfunctional descriptive material” includes but is not limited music, literary works and a compilation or mere arrangement of data.

(emphasis added)

Thus, data structures recorded on a computer readable medium may constitute statutory subject matter. MPEP § 2106.01 goes on further to state the following:

Both types of "descriptive material" are nonstatutory when claimed as descriptive material *per se*, [In re Warmerdam,] 33 F.3d at 1360, 31 USPQ2d at 1759. When functional descriptive material is recorded on some computer-readable medium, it becomes structurally and functionally interrelated to the medium and will be statutory in most cases since use of technology permits the function of the descriptive material to be realized. Compare In re Lowry, 32 F.3d 1579, 1583-84, 32 USPQ2d 1031, 1035 (Fed. Cir. 1994) (discussing patentable weight of data structure limitations in the context of a statutory claim to a data structure stored on a computer readable medium that increases computer efficiency) and Warmerdam, 33 F.3d at 1360-61, 31 USPQ2d at 1759 (claim to computer having a specific data structure stored in memory held statutory product-by-process claim) with Warmerdam, 33 F.3d at 1361, 31 USPQ2d at 1760 (claim to a data structure *per se* held nonstatutory).

In view of the above, a more detailed discussion of In re Warmerdam and In re Lowry is warranted.

Discussion of In re Warmerdam

Claim 1 of In re Warmerdam recited:

1. A method for generating a data structure which represents the shape of [sic] physical object in a position and/or motion control machine as a hierarchy of bubbles, comprising the steps of:

first locating the medial axis of the object and

then creating a hierarchy of bubbles on the medial axis.

Claim 6 of In re Warmerdam recited:

6. A data structure generated by the method of any of Claims 1 through 4.

With respect to claim 1, the court found both steps drawn strictly to mathematical equations, and therefore non-statutory abstract ideas. In re Warmerdam, at 1759. The court went on to find that the data structure of claim 6 suffered from the same defect.

Discussion of In re Lowry

Claim 1 of In re Lowry recited:

1. A memory for storing data for access by an application program being executed on a data processing system, comprising:

a data structure stored in said memory, said data structure including information resident in a database used by said application program and including:

a plurality of attribute data objects stored in said memory, each of said attribute data objects containing different information from said database;

a single holder attribute data object for each of said attribute data objects, each of said holder attribute data objects being one of said plurality of attribute data objects, a being-held relationship existing between each attribute data object and its holder attribute data object, and each of said attribute data objects having a being-held relationship with only a single other attribute data object, thereby establishing a hierarchy of said plurality of attribute data objects;

a referent attribute data object for at least one of said attribute data objects, said referent attribute data object being nonhierarchically related to a holder attribute data object for the same at least one of said attribute data objects and also being one of said plurality of attribute data objects, attribute data objects for which there exist only holder attribute data objects being called element data objects, and attribute data objects for which there also exist referent attribute data objects being called relation data objects; and

an apex data object stored in said memory and having no being-held relationship with any of said attribute data objects,

however, at least one of said attribute data objects having a being-held relationship with said apex data object.

In finding that the printed matter cases have no factual relevance to the claims at issue in In re Lowry, the court stated:

Nor are the data structures analogous to printed matter. Lowry's ADOs do not represent merely underlying data in a database. ADOs contain both information used by application programs and information regarding their physical interrelationships within a memory. Lowry's claims dictate how application programs manage information. Thus, Lowry's claims define functional characteristics of the memory.

In re Lowry, at 1034.

The court further noted the following:

Indeed, Lowry does not seek to patent the Attributive data model in the abstract. Nor does he seek to patent the content of information resident in a database. Rather, Lowry's data structures impose a physical organization on the data.

In re Lowry, at 1034.

And, on the issue of abstract ideas, the Federal Circuit in In re Lowry noted the following:

More than mere abstraction, the data structures are specific electrical or magnetic structural elements in a memory. According to Lowry, the data structures provide tangible benefits: data stored in accordance with the claimed data structures are more easily accessed, stored, and erased. Lowry further notes that, unlike prior art data structures, Lowry's data structures simultaneously represent complex data accurately and enable powerful nested operations. In short, Lowry's data structures are physical entities that provide increased efficiency in computer operation.

In re Lowry, at 1035.

The claims at issue (e.g., claim 1) are analogous to the claims in In re Lowry, and as such are clearly statutory subject matter. Unlike the claims of In re Warmerdam, the claims of the subject application do not recite mathematical equations, or the generation of data structures using mathematical equations. Instead, as in In re Lowry, claim 1 recites a computer readable medium storing a specific data structure that dictates how application programs reproduce data.

Accordingly, because the computer readable medium recited in claim 1 includes a data structure having a management area, which provides “navigation information” for “managing reproduction of still pictures” recorded on the “computer-readable medium,” and that “data is multiplexed into a transport stream,” claim 1 is clearly directed towards patentable, statutory subject matter.

As may be seen from the above discussion of In re Lowry, **nowhere does the Federal Circuit require a claim to directly recite “means or circuits in the body of claims” in order to constitute statutory subject matter**. To the contrary, In re Lowry defines a data structure as functional descriptive material if the data structure imposes a physical organization on the data. In particular, In re Lowry clearly states that the data structures themselves provide tangible benefits.

In the language of MPEP §2106.01 regarding **functional** descriptive material, claim 1 is directed to “a claimed **computer-readable medium encoded with a data structure** defines structural and functional interrelationships between the data structure and the computer software and hardware components which permit the data structure’s functionality to be realized, and is thus statutory.”

In view of the above, Applicants, therefore, respectfully request that the rejection to the above claims under 35 U.S.C. §101 be withdrawn.

Rejections under 35 U.S.C. § 102

Claims 1, 8, 11, 15-18, 23-25, 30, 38-39, and 44-46 are rejected under 35 U.S.C. § 102(e) as being anticipated by US Patent No. 6,341,196 (“Ando”). Applicants respectfully traverse this rejection for the reasons detailed below as it may apply to the remaining and amended claims.

Claim 1, as amended recites *inter alia*, “[t]he playitem providing navigation information for reproducing at least one still picture from a first file, the sub-playitem providing navigation information for reproducing audio data from a second file, and the first file not including audio data.” (Emphasis Added.) As disclosed as Col. 12, Ln. 11-16 of Ando, “[t]he program chain PGC is a unit to execute a series of playback specifying the order in which cells are reproduce[d],” where a “[c]ell is a playback section specifying playback data by a start address and an end address].” (Emphasis Added.) Further, as disclosed at Col. 33, Ln. 47-49 of Ando, the “playback time can be correlated to the address of the VOBUs to be reproduced.” Thus, a PCG controls reproduction of the VOBUs in Ando.

As shown in Fig. 7 of Ando, each “cell 84” includes a plurality of video object units “VOBU 85,” where each VOBUs includes a “video pack 88,” a “sub-picture pack 90” and an “audio pack 91.” Thus, a PCG in Ando controls each of video data, picture data and audio data. That is, there are no separate PGCs for controlling each of the video data, picture data, and audio data. Moreover, each VOBUs file in Ando includes each of the video data, picture data, and audio data. Hence, Ando does not disclose separate files for each of video data, picture data, and audio data. As such, Ando fails to disclose a “the playitem providing navigation information for reproducing at least one still picture from a first file, the sub-playitem providing navigation information for reproducing audio data from a second file, and the first file not including audio data,” as recited in claim 1.

In further support, as shown in Fig. 25 of Ando, the “PGC” controls many types of data, including the following: “RTR MOV.VRO” corresponding to video data, “RTR STO.VRO” corresponding to picture data, and “RTR STA.VRO” corresponding to audio data. Therefore the “PGC” of Ando clearly controls reproduction for each of the video data, picture data, and audio data. As such, Ando also fails to disclose that “the playitem provides navigation

information for reproducing presentation data from the first file, the presentation data includes at least the still picture and related data associated with the still picture,” with the “first file not including audio data,” as recited in claim 1.

For at least the foregoing reasons, claim 1 is patentable over Ando. Independent claims 15-18 recite similar limitations to claim 1 and therefore are patentable for at least the reasons stated above with respect to claim 1. Dependent claims 8, 11, 23-25, 30, 38-39, and 44-46 are at least patentable by virtue of their dependency on one of independent claims 1 and 15-18. Applicants, therefore, respectfully request that the rejection to the above claims under 35 U.S.C. § 102(e) be withdrawn.

Rejections under 35 U.S.C. § 103

Claims 4-5, 20-21, 27-28, 34-35, and 41-42 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Ando in view of US Patent No. 6,532,335 (“Otomo”). Applicants respectfully traverse this rejection for the reasons detailed below.

Even assuming *arguendo* that Ando and Otomo are combinable (which Applicants do not admit), Otomo still fails to remedy the deficiencies of Ando with respect to claims 1 and 15-18. The Examiner cites Otomo as teaching a recording/reproducing apparatus that is capable of processing graphic data for generating a still picture. However, the secondary reference fails to cure the deficiencies of the primary reference to disclose claims 1 and 15-18, as amended. For at least the reasons stated above, dependent claims 4-5, 20-21, 27-28, 34-35, and 41-42 are at least patentable by virtue of their dependency on one of independent claims 1 and 15-18. Applicants, therefore, respectfully request that the rejection to the above claims under 35 U.S.C. § 103(a) be withdrawn.

CONCLUSION

In view of the above remarks and amendments, the Applicants respectfully submit that each of the pending objections and rejections has been addressed and overcome, placing the present application in condition for allowance. A notice to that effect is respectfully requested. If the Examiner believes that personal communication will expedite prosecution of this application, the Examiner is invited to contact the undersigned.

Should there be any outstanding matters that need to be resolved in the present application, the Examiner is respectfully requested to contact Gary D. Yacura, at the telephone number of the undersigned below.

If necessary, the Commissioner is hereby authorized in this, concurrent, and future replies, to charge payment or credit any overpayment to Deposit Account No. 08-0750 for any additional fees required under 37 C.F.R. § 1.16 or under 37 C.F.R. § 1.17; particularly, extension of time fees.

Respectfully submitted,

HARNESS, DICKY, & PIERCE, P.L.C.

By

A handwritten signature in black ink, appearing to be 'G. Yacura', written over a horizontal line.

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GDY/NKP:aem

Handwritten initials 'NP' in black ink.